

IN THE CLAIMS:

Please cancel claims 2, 11, 18, and 19 without prejudice or disclaimer.

1. (Original) 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine dihydrate.
2. (Cancelled)
3. (Currently amended) The compound of claim ~~1~~ 4, wherein the compound is further characterized by the following PXRD peaks: 8.4, ~~9.0~~, ~~10.5~~, 12.9, ~~13.7~~, 14.1, ~~15.1~~, 16.7, 17.8, 18.2, 18.8, ~~20.1~~, 20.9, ~~21.2~~, ~~22.0~~, 22.4, 22.9, 23.2, ~~23.7~~, 24.6, 25.1, 25.5, 26.0, 26.7, 27.0, 27.8, 28.3, 28.8, 29.4, 30.1, 31.2, 33.0, 34.2, 34.7, 36.2, 36.8, 37.8, 39.4 ± 0.2 degrees two theta.
4. (Original) The compound of claim 1, wherein the compound is characterized by the following main PXRD peaks: 9.0, 10.5, 13.7, 15.1, 20.1, ~~21.2~~, 22.0, 23.7 ± 0.2 degrees two theta.
5. (Original) The compound of claim 1, wherein the compound is characterized by a differential thermal gravimetry thermogram having an endothermic peak at about 97 °C and a second endothermic peak at about 160 °C.
6. (Currently amended) The compound of claim ~~1~~ 5, wherein the compound is further characterized by ~~a differential thermal gravimetry thermogram having an endothermic peak at 97 °C; a weight loss of about 11 % between 27 °C and 114 °C; and a second endothermic peak at 160 °C.~~
7. (Currently amended) A process for preparing 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine dihydrate comprising the steps of:
heating a mixture of preparing a basic salt solution of a 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine and an organic liquid; and
allowing 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine dihydrate to form.
8. (Original) The process of claim 7, further comprising:
recovering 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine dihydrate from the solution.

9. (Original) The process of claim 7, wherein the basic salt solution comprises a base selected from the group consisting of potassium hydroxide, sodium hydroxide, lithium hydroxide, barium hydroxide, and tetraalkylammonium hydroxide.
10. (Original) The process of claim 9, wherein the basic salt solution comprises potassium hydroxide.
11. (Cancelled)
12. (Currently amended) The process of claim 7 25, wherein the organic ~~liquid~~ solvent comprises methyl iso-butyl ketone.
13. (Currently amended) The process of claim 7 26, wherein the heating step comprises refluxing.
14. (Currently amended) The process of claim 7 23, wherein the acid is an aqueous acid solution.
15. (Original) The process of claim 14, wherein the aqueous acid solution comprises an acid selected from the group consisting of phosphoric acid, nitric acid, sulfuric acid, acetic acid and hydrochloric acid.
16. (Original) The process of claim 14, wherein the aqueous acid solution comprises about 5-36% w/w hydrochloric acid.
17. (Currently amended) A process for preparing mirtazapine comprising converting 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine dihydrate to mirtazapine, wherein the converting step comprises:
reducing carboxy-NMPP dihydrate to form hydroxy-NMPP; and
dehydrating the hydroxy-NMPP to form mirtazapine.
18. (Cancelled)
19. (Cancelled)
20. (New) The compound of claim 1, further characterized by a PXRD pattern substantially as depicted in Figure 1.
21. (New) The compound of claim 1, further characterized by a differential gravimetry thermogram substantially as depicted in Figure 2.
22. (New) 1-(3-carboxypyridyl-2)-4-methyl-2-phenylpiperazine dihydrate prepared by the process of claim 7.

23. (New) The process of claim 7, further comprising neutralizing the solution with an acid.

24. (New) The process of claim 7, further comprising adding an organic solvent to the solution.

25.

(New) The process of claim 24, wherein the organic solvent is selected from the group consisting of methyl iso-butyl ketone, toluene, heptane, and mixtures thereof.

26. (New) The process of claim 7, further comprising heating the solution.

